DOCUMENT RESUME

ED 298 382 CG 021 063

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TITLE Preventing Alcohol and Other Drug Problems through Drug Education. Policy Bulletin No. 3.
INSTITUTION Consortium on Educational Policy Studies, Bloomington, IN.
PUB DATE May 88
NOTE 7p.
PUB TYPE Reports - General (140)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Drug Abuse; *Drug Education; Elementary Secondary Education; *Federal Aid; Financial Support; *Prevention; *Program Design; Program Implementation
IDENTIFIERS Indiana

ABSTRACT

Public schools have a responsibility to educate students about drug abuse, and states have a responsibility to assist schools in their efforts. Properly designed and implemented drug education programs are the most cost-effective means of preventing alcohol and other drug problems. Poorly designed and implemented programs, on the other hand, can cause more problems than they solve, and can actually increase student experimentation with drugs. Careful planning of drug education messages can help ensure success in program design, and careful training of drug educators can help ensure success in program delivery. Several important rules have been suggested by the research concerning drug education message design. These include the ideas that: (1) drug abuse is a progressive disease and that gateway drugs are precursors of drug abuse; (2) drug education facts and techniques must be current; (3) social skills and refusal skills are essential; (4) programs must be designed to avoid the "risky shift" in group activities, a theory that groups have a tendency to take greater risks than do individuals; and (5) the message source may be as important as the message itself. In addition to careful program planning and educator training, schools and community agencies need to develop better fundraising and grantwriting skills in order to receive federal funding. States will also need to develop a long-term funding strategy to provide resources necessary for quality drug abuse prevention programs. Taxation on the gateway drugs of alcohol and tobacco may be the most logical funding strategy in the long run. (Sixty-five references are listed.) (NB)

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POLICY BULLETIN

Consortium on Educational Policy Studies
BLOOMINGTON, INDIANA

ED298382

CG 021063

PREVENTING ALCOHOL AND OTHER DRUG PROBLEMS THROUGH DRUG EDUCATION

William J. Bailey

Introduction

In October 1986, the U.S. Congress passed the *Anti-Drug Abuse Act of 1986*, providing $1.7 billion in federal funds over the next three years to combat illegal drug use. Included in this bill was the *Drug-Free Schools and Communities Act of 1986*, which provided $700 million over three years for programs to prevent alcohol abuse and the use of illegal drugs through "drug education and prevention programs." Under this law, nearly $13 million has been targeted for Indiana schools and communities for new drug education and prevention programs.

As the old paradox suggests, there is good news and bad news about the effectiveness of drug education programs. The good news is that properly designed and implemented drug education programs are the most cost-effective means of preventing alcohol and other drug problems. The bad news is that poorly designed and haphazardly implemented drug education programs can cause more problems than they solve. There is ample evidence of well intentioned drug education programs that have backfired and actually **increased** experimentation with and abuse of drugs by sparking students' curiosity about drug use, even though the programs were intended to teach students about the serious consequences of drug abuse (e.g., Cornacchia, Smith, & Bentel, 1978, pp. 144-145; Hanson, 1982; Weaver & Tennant, 1973). Further study of the scientific literature by drug education experts has identified the "fatal" characteristics of drug education programs that are most likely to result in drug education program failure. Wallack (1980, p. 17) observed that program failure results from (a) faults in program design, (b) faults in program delivery, or (c) faults in both. To prevent drug education programs from backfiring, both the program design and delivery must be carefully planned.

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Message Design—The Key to Effective Drug Education Theory

The first step in planning a drug education program is to carefully study the characteristics of successful and unsuccessful programs. Fleming and Levie (1978) developed a system of "instructional message design" that uses the findings of social science research to improve the effectiveness of educational methods. Using this system of analysis, a number of reviewers (e.g., Bailey, 1985b; McGuire, 1974) have offered suggestions for the design of drug education programs to assure that the programs prevent, rather than encourage, drug problems. The following is a brief summary of the more important "rules" suggested by the research concerning drug education message design.

* ***"Gateway Drugs" are Precursors of Drug Abuse.*** Drug abuse is a progressive disease. Nearly 95% of all drug abusers follow a pattern of progression from one drug to another. It is extremely rare for drug users to choose heroin or LSD as their first drug. Drug abuse prevention programs need to recognize this pattern of progression and concentrate initial efforts on the so-called "gateway drugs" as a means of controlling experimentation with and abuse of harder drugs. Kandel and her associates (Kandel, 1975; Kandel & Faust, 1975; Kandel & Logan, 1984; Single, Kandel, & Faust, 1974; Yamaguchi & Kandel 1984a, 1984b) have shown that almost all illegal drug abusers begin their drug use with either tobacco or alcohol. It is rare to find an illegal drug abuser who does not abuse both tobacco and alcohol.

Donovan and Jessor (1983) and Jessor, Chase, and Donovan (1980) further defined the role of drinking alcohol by observing that it was "problem drinking," not "drinking *per se*," that was the precursor of illegal drug use. They also noted that the younger the beginning drinkers were, the more likely they would later turn to illegal drugs. Fracchia, Sheppard, and Merlis (1974) made similar observations about early cigarette smoking—the earlier the onset of smoking, the more likely those smokers would later turn to illegal drugs.

Obviously, not all children who smoke cigarettes and/or drink alcohol will turn to other drugs. However, it is rare for an individual to make the decision to avoid

smoking and to avoid abusive use of alcohol for health reasons, and then decide to use illegal drugs. Children who choose neither to smoke nor abuse alcohol have taken the first steps toward avoiding use of illegal drugs. Clearly, tobacco and alcohol education programs are an essential part of any drug education program. Furthermore, Zabin (1984) found that teenage girl smokers were much more likely to be sexually active at an early age, so activities designed to prevent smoking and alcohol abuse may also help reduce the likelihood of early sexual activity among teenagers.

* ***Drug Education Facts and Techniques Must Be Up-to-date.*** In the past ten years, scientific knowledge about drugs (e.g., risks of marijuana and cocaine) has advanced dramatically. It is not sufficient for teachers to be trained once—they need to be kept up-to-date. Out-of-date text materials and audiovisuals also need to be replaced.

Also during the last decade, drug education techniques have changed in response to changing student attitudes. Some of the cherished tenets of 1970s drug education programs no longer apply. In 1975, for example, few high school students saw much risk in occasional marijuana or cocaine use, while now a vast majority of high school students see even occasional use as being risky (Johnston, O'Malley, & Bachman, 1986). Students of the 1970s placed much more trust in what former addicts and people with "street drug" experience had to say about the effects of drugs (e.g., Hanneman, 1973; Kline & Wilson, 1972; Smart, 1972) than do the students of today (Aiken & LoScuito, 1984; Bailey, 1985a). Drug education programs need to recognize and respond to these changes.

* ***Social Skills, Including "Refusal Skills," Are Essential.*** Development of social skills, including "refusal skills," is even more important than accurate, up-to-date facts about drugs in an effective drug abuse prevention program. ***How*** to say "no" is an essential survival skill that must be taught to every school-aged child and adolescent. Drug abuse curricula that teach social skills such as decision-making, assertiveness, communication, and positive self-image have the best record of successes in preventing drug abuse through education (e.g., Berberian, Gross, Lovejoy, & Paparella, 1976; Botvin, Baker, Botvin, Filazzola, & Millman, 1984; Botvin, Baker, Renick, Filazzola, & Botvin, 1984).

Such programs teach students skills needed to resist peer pressure to use drugs and have the additional benefit of teaching skills that can be used to resist other types of peer pressure, such as pressure to steal, participate in inappropriate sexual activities, miss school, or engage in other anti-social behaviors. When tied with peer education or cross-age peer education programs, social skills curricula have the potential to be even more effective (Perry, Killen, Telch, Slinkard, & Danaher, 1980).

* ***Avoid the "Risky Shift" in Group Activities.*** A number of drug education programs utilize small group discussions as a medium for exploring personal values about drugs (e.g., Blokker, Gaser-Kirschenbaum, & Kirschenbaum, 1976). When properly designed, these activities teach social skills that children need to resist peer pressure. Model programs such as those developed at Stanford University (McAlister, Perry, Killen, Slinkard, & Maccoby, 1980; Perry et al., 1980), which utilize trained "peer educators" to facilitate these group discussions, have been shown to be effective in reducing rates of drug use.

Haphazardly designed group activities, however, often produce the opposite effect—increased rates of drug use. If group activities are not properly structured, a social-psychological phenomenon called the "risky shift" can take control of the group process (Bateson, 1966). According to the "risky shift" theory, groups have a tendency to take greater risks than individuals. A single teenage boy who sees keys left in a car ignition is less likely to steal the car than a group of five such boys; the group exerts a risk-taking peer pressure upon its members that results in the group accepting risks that its individual members would not accept. Deren and Des Jarlais (1977) observed that the risky shift could increase drug taking among group members.

An example of a dangerous group activity that was popular in drug education programs in the 1970s involved "forced choices." A group of students might be asked to decide: Which of the following would you be most likely to do? (a) Smoke marijuana, (b) take LSD, or (c) drink beer to the point of intoxication. In this activity students were forced to decide among a list of poor choices, and the group interaction could result in students "learning" techniques for saying "yes" instead of "no."

Group activities can be a very positive drug education technique, but these activities *must* be designed by professionals who are trained to avoid the risky shift. The size of the group, the amount of time spent in discussion activities, and the structure of the activity are among the variables that need to be considered in designing group drug education activities (Bennett, Lindskold, & Bennett, 1973; Clarke & Parcel, 1976; Cooper & Wood, 1974; Wallach & Kogan, 1965; Wallach, Kogan, & Burt, 1965).

* ***"Message Source" May Be as Important as the "Message."*** Recent research findings show that not all sources of information are perceived by students as being credible (e.g., Bailey, 1985a; Smart, 1972; Swinehart, 1980). Although elementary school and middle school students may not make the distinction, high school and college students find informed, experienced professionals to be more credible sources than "ex-addicts" and nonprofessionals (Bailey, 1985a; Stainback & Rogers, 1983). Although "peer education" programs (e.g., Perry et al., 1980) and the use of role models, such as college athletes (e.g., McDermott & Marty, 1982; Seffrin & Bailey, 1985), are effective, the nonprofessional "peer educators" are used as experts on social skills, rather than as experts on drugs.

Teacher Training—The Key to Effective Program Delivery

Inadequate teacher preparation is our number-one drug education problem. Although more than one third of Indiana's high school students have used illegal drugs (Hahn, Jones, & Morton, 1980), and almost 90% of them

can be expected to drink alcohol before they graduate from high school (Johnston, O'Malley, & Bachman, 1986), most Indiana school districts have not invested in professional drug educators. A survey conducted by Indiana University's Center for Health and Safety Studies in 1985 (Bailey, 1986) found that less than 25% of Indiana's high schools were offering the semester-long elective drug education course mandated by state law [IC 20-10.1-4-9(b)]. Of 61 teachers who were teaching that full-semester course, only 11 had taken as much as a one-semester course in drug education themselves! Although Indiana law requires that all elementary schools offer drug education in grades 4 through 8, elementary school teachers are not required to take any courses to prepare them to provide such instruction.

Effective drug education programs require qualified teachers who are familiar with the special methods and techniques used in drug education programs. Drug education programs cannot simply teach the "facts" about drugs; they must utilize special techniques (e.g., activities to instill self-respect and personal growth) to assure that students can process the facts and make sound decisions, such as the decision not to experiment with the drugs being discussed in class. Unlike history teachers, who have little reason to fear that their students will start a war after studying about war, drug educators face a real possibility that students may be tempted to experiment with drugs after learning about them in the classroom. An ill-prepared teacher who is unfamiliar with successful drug education strategies can be a real danger to his or her students. Good intentions on the part of the teacher are not enough.

Drug education programs must teach social skills, such as techniques for resisting peer pressure, making informed decisions, and developing a positive self-concept, as well as the "facts about drugs." Experienced classroom teachers can learn these special techniques easily through continuing education programs offered during summers and through short courses (Malvin, Moskowitz, Schaeffer, & Schaps, 1984). It is very unlikely that an inservice teacher will have the time or expertise to learn these techniques through self-study.

The state of Indiana cannot afford to permit drug education programs to be directed by undertrained teachers. There are some funds available for teacher training. For example, in September 1987, the U.S. Department of Education awarded a grant to Indiana University's Department of Applied Health Science to train 100 Indiana school teachers as drug abuse prevention specialists. This $161,520 grant from the "Secretary's Discretionary Fund for Drug Abuse Prevention" will nearly double the number of well prepared drug education teachers in the state. While these federal funds provide a unique opportunity for a one-time expansion of the state's pool of qualified drug educators, they are inadequate to provide even one well qualified drug educator for every school corporation, much less for every school in the state. Additional state assistance is needed to expand this effort to place qualified teachers in drug education classrooms.

Two other ways that states can ensure that students are receiving appropriate instruction are (a) to incorporate drug education into teacher training and retraining programs and (b) to make continued funding of school drug education programs contingent on completion of appropriate coursework by teachers at accredited institutions of higher education. Until state funding is in place, school districts might also be encouraged and given technical assistance to seek outside funding (e.g., federal or private grants) to support teacher training and drug education programs.

Training in Grantwriting and Fundraising

If Indiana schools and communities are to develop top quality drug abuse prevention programs, they will need to learn how to compete successfully for federal financial assistance. For the past two decades, however, Indiana schools and communities have consistently fared poorly in receiving federal and private sector grants to support social services. This relatively poor track record becomes self-perpetuating when the schools and community agencies do not develop grantwriting and fundraising skills and experience. For example, in 1987, more than $50 million in federal funds were available to assist drug abuse prevention on a national level (in addition to the "entitlement grants" that were given to each state). Indiana received only $488,739 of this money, and $394,783 of that came to the Bloomington-Monroe County area. The remaining $93,956 was awarded to the University of Notre Dame in South Bend. A list of 1987 federal drug abuse prevention grants awarded to Indiana agencies from national competitions is shown below:

ACTION Federal Domestic Volunteer Agency

City of Bloomington, Department of Human Resources Sue Wheeler, Project Director	$ 35,000

U.S. Dept. of Education —Secretary's Discretionary Fund

Monroe County Community School Corporation, Bloomington David Ebeling, Project Director	$132,500
Indiana University —Bloomington William J. Bailey, Project Director	$161,520

U.S. Dept. of Education —Fund for the Improvement of Postsecondary Education (FIPSE)

Indiana University —Bloomington William J. Bailey, Project Director	$ 65,763
University of Notre Dame —South Bend Ann M. Firth, Project Director	$ 93,956

The development of state or local programs to teach grantwriting and fundraising skills to staff members of our schools and community agencies is critical for Indiana schools and communities to take advantage of available funding opportunities.

Conclusion

Public schools have a responsibility, as well as an opportunity, to educate youth about the consequences of drug abuse, and states have a responsibility to assist schools in their efforts. Careful planning of drug education messages can help ensure success in program design, and careful training of drug educators can help ensure success in program delivery. If these two "technical" concerns are met, then funding becomes the biggest obstacle to effective drug abuse prevention programs.

Federal assistance can provide Indiana schools and community organizations with start-up funds for drug abuse prevention programs. But to receive these funds, schools and community agencies need to develop better fundraising and grantwriting skills. Additionally, the state will need to develop a long-term funding strategy to provide the resources necessary for quality drug abuse prevention programs. Taxation on the "gateway drugs"—alcohol and tobacco—may be the most logical funding strategy in the long run. This strategy would place the financial burden of such programs on the users and manufacturers of alcohol and tobacco, and the price increase might reduce demand for these products among minors. □

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POLICY BULLETIN No. 3
May 1988

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